

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Amendment of Section 15.247(a)(1)(ii)
of the Commission's Rules on Spread
Spectrum Operation

RM 8608

Amendment of Part 15 of the Commis-
sion's Rules to Reduce the Spectral
Occupancy of Frequency Hopping Spread
Spectrum Devices

RM 8609

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REPLY COMMENTS
OF
METRICOM, INC.

1. Metricom, Inc. ("Metricom"), by its attorneys, pursuant to Section 1.405(b) of the Commission's Rules, hereby submits these Reply Comments concerning the above-referenced Petitions for Rule Making of Symbol Technologies, Inc. ("Symbol"), RM 8608 and SpectraLink Corporation ("SpectraLink"), RM 8609. Based upon a review of the Petitions and the Comments filed in response thereto, Metricom submits these Reply Comments which focus on overall Commission policy as it relates to the future of spread spectrum operations.

2. Metricom is concerned that the proposals contained in the Petitions could inadvertently result in spread spectrum operations becoming "channelized." This would be antithetical to spread spectrum operations as originally envisioned by the FCC. Therefore, Metricom urges the Commission, as it considers these requests for Rule Making, to proceed very cautiously so that spread spectrum rules continue to ensure that radio signals are spread

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throughout the entire bandwidth allocated for spread spectrum operations.

THE SYMBOL PETITION - RM 8608

3. Symbol's Petition only specifies bandwidth considerations when there are fewer than 75 channels in operation in the band. While Metricom is not concerned about rules which require channels that utilize more bandwidth than is currently allowed, (which results in fewer available channels), Metricom encourages the Commission to ensure that if less than 75 channels are in operation, there is a Rule which specifies bandwidth as a function of the number of channels in operation. Channel distribution within the band must also be specified. Metricom's objective is to ensure that channels are distributed evenly across the entire band so that there is no "bunching" of channels in a particular band segment. Thus, spreading operations and using all of the bandwidth allocated is encouraged.

The SpectraLink Petition - RM 8609

4. The SpectraLink Petition states that its proposed rule amendment is necessary, inter alia, because of the Commission's decision in the AVM/LMS proceeding. Metricom does not understand this reasoning because the Commission's decision states that Part 15 devices operating indoors will be presumed not to cause interference to LMS operations; and SpectraLink stated at page 2 of its Petition that its devices operate indoors. Accordingly, SpectraLink's operations would be protected from interference

claims from LMS operators and the stated rationale does not justify SpectraLink's request for a Rule change.

5. SpectraLink's request would permit operations on what is now full bandwidth channels over approximately 13 MHz rather than the currently prescribed 26 MHz. Even with the 3 dB reduction in power requested by SpectraLink, such operation will lead to a bunching of operations in the band. There is no need for such bunching. The premise of SpectraLink's Petition appears to be that continued operation across the entire 26 Mhz currently is no longer feasible because a problem exists with spread spectrum operations being able to coexist with other services. Other than the well-documented problems with LMS operations, this is simply not the case.

6. Furthermore, SpectraLink's proposed spectral power density alone (500mW if 13 MHz is used) does not fully describe the potential for crowding if many or most 900 MHz spread spectrum operations begin to concentrate in this 13 MHz. This creates an exponential problem, not a linear problem, due to the statistical nature of systems' response to interference/collisions.

CONCLUSION

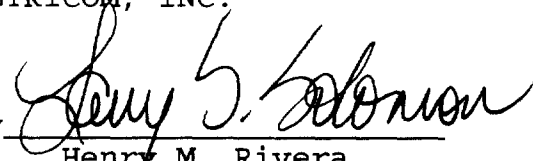
7. While Metricom is not opposed to the Petitions for Rule Making filed by Symbol and SpectraLink, it urges the Commission to consider very carefully the implications of each of the Petitions on the Commission's vision for spread spectrum operations. This vision has resulted in spread spectrum rules which require the spreading of signals over the entire allocated band. The

Commission should not pursue policy options which could lead to the de facto channelization of spread spectrum allocations. Channelization is inconsistent not only with the Commission's vision of spread spectrum operations, but also with the entire concept of spread spectrum operations generally. Therefore, policies or rules encouraging channelization of spread spectrum allocations should be avoided.

Respectfully submitted,

METRICOM, INC.

By



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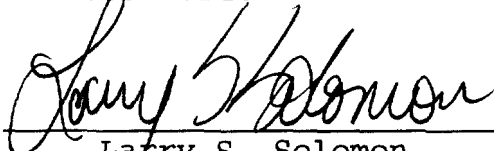
Dated: April 24, 1995

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Reply Comments were served, this 24th day of April, 1995, by first class mail, postage prepaid, upon the following:

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